# The North Atlantic Regional Medical Command's Telemedicine Health Portal

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## NARMC Posture

Operating Multitude of Stovepipe Web Applications
- Dermatology
- Behavioral Health
- Shoe Clinic
- Sleep Evaluation
- Neuropsychology
- Neurology (Brain Injury)
- Orthopedics
- Hepatitis C

## Project Goals

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- Orthopedics
- Hepatitis C

## User Community

Patients
General Healthcare Providers
Specialist / Consultants
Administrators
- Site Administrator
- Application Administrator
- Senior System Administrator

Administration (Report Access)
Guests

## Our Approach

- Create a Master Oracle Database with multiple tables for all Applications
- Develop Common Application Modules
- Develop various standard Utility Modules
- Develop a standard development library with small reusable functional procedures

## Hardware Architecture

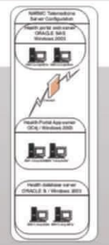
Compaq DL 380 Servers (6)
- 1 GB Memory, 100 GB Disk Storage

Server Configuration
- Web Server (Replicated)
- Application Server (Replicated) (Behind Firewall)
- Database Server (Replicated) (Behind Firewall)

Rack Mounted & UPS Backup

## NARMC Server Configuration

Compaq DL 380 Servers
1 GB Memory each
100 GB Hard Drive each
Each Functional Server is Replicated



## Code Documentation Standards

Program Initial Comment Block

```
<%-- -------------------------------------------------------------------------
PROGRAM NAME:   template.jsp
AUTHOR:   Brian Quinn
DATE CREATED:   01 Jun 03
MODULE: Core
VERSION:   1.0
COMMENTS:
This page is the standard web page "wrapper" which
should be included
in every webpage within the THP framework.
-------------------------
REVISION 1.1:   12 Jun 03Brian Quinn
Added new standard comments block
------------------------------------------------------------------------- --%>
```

Each Section Commented On
Difficult or Complex Sections Include Programmers CommentsCode is Reviewed During Test/Validation Acceptance

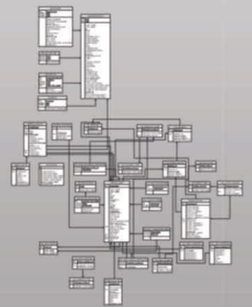
## Software Control / Library Structure

- Each Developer has their own development application directory
- Test Library (Alpha Testing)
* Validation Library (Beta Testing)
* Operation Library

*-- **Only DBA can promote code to this library**

## Formal Testing Plan

- Documentation Review
- User Review
- Code Review
- Code Test
- Functional Test
- Integration Test



## Applications in Development

- Common Application Modules (15)
- Common Utility Modules (5)
- Generic
- Pathology
- Plastic Surgery
- Neurosurgery
- Tumor Board

## Next Migration Effort

- Build in a stand alone Application Interface for existing applications
- Patient Sleep Evaluation (existing)
- Brain Injury (existing)
- Running Gate Analysis (existing)
- Future R & D Funded Projects (new)

## Security / HIPAA (Common Core)

- User Registration
- Password Management
- User Access Rules (per application)
- Activity Log
- Patient Record Access Log

## Password Management (Common Core)

IAW AR 25-2 (2003)
Initial One-Time Use
10 Character Password
2 Upper, 2 Lower, 2 Numbers & 2 Special Character
Forgotten Password Support
Password Expiration w/ Notification
Non-Reusable password for 10 cycles

## Patient Data Sources (Common Core)

- Demographics (DoD DEERS database)
- Medications (local clinical database)
- Lab Results (local clinical database)
- Allergies (local clinical database)

## File Upload Support (Common Core)

- 5 Images at a time can be uploaded
- Repetitive Uploads (group of 5)
- File Types Supported
  - JPG
  - GIF
  - MPG
  - Doc
  - PDF
- Ensure no Executable Files are uploaded

## Standard Reports (Common Core)

- Auto Generated Standard Consult Form (SF 513)
- Auto Generated Standard Patient Encounter Form (SF 600 )
- Access to Radiology Reports
- Consult Activity Summary Report

## Documentation (Common Core)

System Overview
Patient Telemedicine Information Sheet
Patient Telemedicine Consent Form

## System Support Utility (Common Core)

- Feedback Support
- Administrator Support
  - Account Authorization and Maintenance
  - Log Access (Activity Log & Patient Access Record Log)
  - Multi-Application Role Authorization
- User Profile Access
- Auto eMail Notification
  - New User Registered
  - New Consult Arrived
  - Contact Administrator
  - Contact Developers
  - Forgotten Password
- Auto Consult Status Tracking (Date & Time)
  - Created, Not Approved
  - New
  - Pending Amendments / Images
  - Sent to Consultant
  - Sent to Provider
  - Completed

## Special Common Core Features (Common Core)

- Warning and Lockout if "Record Already in Use"
- Develop a "User Specific" 1st Page for:
  - Patient
  - Healthcare Provider
  - Healthcare Specialist / Consultant
  - Site System Administrator
  - Application Administrator
  - Senior System Administrator

## Special Common Core Features (Common Core)

Patient eligibility through DEERS database

Healthcare Provider status through facility Integrated Clinical Database

Specialist / Consultant status through AMEDD license tracking database (CCQAS)